

Claims

[c1] 1. A method of determining a merging bit, the method comprising:

- (a) appending one bit to a fourteen-bit set of data output from an eight-to-fourteen modulator to make a fifteen-bit set of data;
- (b) dividing the fifteen-bit set of data into five local digital-sum-values of three bits;
- (c) adding the five local digital-sum-values to an initial digital-sum-value to generate a sub-digital-sum-value; and
- (d) generating the merging bit according to the sub-digital-sum-value and a predetermined value.

[c2] 2. The method of claim 1 further comprising: generating the initial digital-sum-value by adding the local digital-sum-value corresponding to the former merging bit to the former sub-digital-sum-value.

[c3] 3. The method of claim 1 wherein step (b) further comprises: corresponding the three bits and an initial non-return-to-zero of the three bits to a first table for generating the local digital-sum-value.

[c4] 4. The method of claim 1 wherein step (d) further comprises:

corresponding the sub-digital-sum-value and the pre-determined value to a second table for generating the merging bit.

[c5] 5. A device for carrying out the method of claim 1.